

Notice of Allowability	Application No.	Applicant(s)	
	09/976,426	ROGERS, DARREN KENNETH	
	Examiner	Art Unit	
	Hai Vo	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the terminal disclaimer filed 03/27/2007.
2. ☒ The allowed claim(s) is/are 9-11 and 25-37.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
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| <ol style="list-style-type: none"> 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>20070326</u> 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____ |
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Terminal Disclaimer

The terminal disclaimer filed on 03/27/2007 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of U.S. Patent No. 7,192,537 has been reviewed and is accepted. The terminal disclaimer has been recorded.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Philip D. Lane on 03/26/2007.

The application has been amended as follows:

The claims:

Claim 29: line 4, delete $1.E^{+00}$ ohm-cm and insert --15 ohm-cm--.

Claim 32: line 2, delete $1.E^{+00}$ ohm-cm and insert --15 ohm-cm--.

Reasons for Allowance

The following is an examiner's statement of reasons for allowance: Note that the claim objections are considered moot in view of Applicants' amendment. Additionally, Examiner's amendment is sufficient to overcome the art rejections and place the instant claims in condition for allowance.

Of the references of record, the most pertinent are McCullough, Jr. et al (US 4,999,385), JP 09-087057 and Lucas (US 7,192,537).

McCullough in view of JP'057

McCullough teaches an electrical shielding comprising a carbon foam made from a carbonized polymeric material. McCullough discloses three groups of carbon foams. Group I was a non-electrically conductive foam having a nitrogen content of about 20% and an electrical resistivity of greater than 10^3 ohm-cm. Group II was a foam having a carbon content of less than 85%, a nitrogen content of from 16 to 20% and an electrical resistivity of about 10^3 ohm-cm to 10 ohm-cm. Group III was a foam having a carbon content of at least 85% and an electrical resistivity of less than 10 ohm-cm. McCullough does not specifically disclose a carbon foam having a dielectric constant of from 2 to 6. JP'057 teaches a wave absorber comprising a carbon foam made from a blend of a polymer and graphite fibers and having a carbon content of at least 85% (abstract). JP'057 discloses the carbon foam having a dielectric constant from 2 to 8 and an electrical resistivity of 10^{-3} ohm-cm to 10^{-1} ohm-cm (paragraphs 17 and 19). JP'057 discloses that the dielectric constant or the electrical resistivity can be regulated so as to be within the disclosed range by adjusting the internal pressure of the chamber (paragraphs 19 and 38). Likewise, there is guidance that modifying the internal pressure of the chamber would provide the desired dielectric constant from 2 to 8 without materially affecting an electrical resistivity in the range from 10^{-3} ohm-cm to 10^{-1} ohm-cm. It is noted that the carbon foam classified in group III of McCullough has a carbon content and an electrical resistivity within the ranges set out in the JP'059

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patent. In light of the teaching of JP'059, one skilled in the art would have been motivated to adjust the internal pressure of the chamber to provide the appropriate dielectric constant from 2 to 8 for the carbon foam of McCullough without materially changing its electrical resistivity. The carbon foam of McCullough as modified by JP'059 has a dielectric constant from 2 to 8 and an electrical resistivity less than 10 ohm-cm, which is about 33% lower than a lower limit of the claimed range.

JP'057 in view of McCullough

JP'059 discloses a carbon foam made from a synthetic resin and a particulate coal filler, having a dielectric constant ranging from 2 to 8 and an electrical resistivity from 10^{-3} to 10^{-1} ohm-cm. McCullough discloses three groups of carbon foams. Group I was a non-electrically conductive foam having a nitrogen content of about 20% and an electrical resistivity of greater than 10^3 ohm-cm. Group II was a foam having a carbon content of less than 85%, a nitrogen content of from 16 to 20% and an electrical resistivity of about 10^3 ohm-cm to 10 ohm-cm. Group III was a foam having a carbon content of at least 85% and an electrical resistivity of less than 10 ohm-cm. It appears that the carbon foam classified in group III of McCullough has a carbon content and an electrical resistivity within the ranges set out in the JP'059 patent. One skilled in the art would not be motivated to modify the electrical resistivity of the JP'057 greater than 10 ohm-cm because to do so would materially reduce the carbon content less than 85%. This would defeat the objective of JP'057. Additionally, there is no guidance or teaching in McCullough that the foam would continue to have a desired dielectric constant if the foam is heated at the temperature ranging from 650°C to 850 °C.

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The obviousness-type double patenting rejections over the claims of US 7,192,537 have been overcome in view of the terminal disclaimer filed on 03/27/2007.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Vo whose telephone number is (571) 272-1485. The examiner can normally be reached on Monday through Thursday, from 9:00 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HV

Hai Vo
HAIVO
PRIMARY EXAMINER